

Patent Claims

1. A guide carriage of a linear roller bearing, having at least one endless raceway for rolling bodies (9), and having a carrying body (1), on the two longitudinal sides of which in each case one carrying section (2, 3) and one return section (5, 6) of the endless raceway is provided, the carrying section (2, 3) being provided rolling bodies (9) which roll under load and the return section (5, 6) being provided for rolling bodies (9) which return without load, and having head pieces (13) which are arranged on end sides of the carrying body (1) and in each case have one deflection section (11, 12) which connects the return section (5, 6) to the carrying section (5, 6), a lubricant channel (24) being provided for the supply of lubricant, which lubricant channel (24) can be connected to the raceway of the rolling body (9) via a valve (30), characterized in that the valve (30) has a slot (33) which is provided for the passage of lubricant, crosses the cross section of the lubricant channel (24) and is delimited by slot faces (34), the slot faces (34) bearing against one another when the valve (30) is shut, with the slot (33) being closed.

2. The guide carriage as claimed in claim 1, in which at least one of the head pieces (13) is provided with the lubricant channel (24) which can be connected to the deflection section (11, 12) via the valve (30), for supplying lubricant.

3. The guide carriage as claimed in claim 1, in which the valve (30) is arranged in the lubricant channel (24) and is configured approximately as a funnel (36) which is divided by the at least one slot (33) into funnel segments (38) which delimit the slot (33) with slot faces (34) which are adjacent to one another.

4. The guide carriage as claimed in claim 3, in which the funnel is configured as a cone (31).

5. The guide carriage as claimed in claim 3, in which the lubricant channel (24) is provided with a first end which is situated at the deflection section (11, 12) and with a second end which is situated at a lubricant feed opening, the funnel tip (37) of the funnel (36) facing the first end.

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6. The guide carriage as claimed in claim 3, in which the funnel tip (37) of the funnel (36) is arranged in the flow direction of the lubricant.

15 7. The guide carriage as claimed in claim 3, in which the funnel (36) has slots in the shape of a cross.

8. The guide carriage as claimed in claim 3, in which the slotted funnel (36) is manufactured from plastic, in particular using the injection molding process.

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9. The guide carriage as claimed in claim 1, in which the slot faces (34) which delimit the slot (33) are pressed against one another elastically.

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10. The guide carriage as claimed in claim 2, in which the head piece (13) comprises a distributor plate (14) which is formed from plastic and is provided with a branched distributor channel (26), at the ends of which transfer holes (28) are provided, the slots (33) being arranged in the transfer holes (28).

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11. The guide carriage as claimed in claim 10, in which the slot faces (34) are formed integrally on the distributor plate (14).

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12. The guide carriage as claimed in claims 3 and 11, in which the funnel (36) is formed integrally on the distributor plate (14).

- 5 13. The guide carriage as claimed in claim 10, in which the deflection section (11, 12) has an inner deflection means (19), known per se, for the rolling bodies (9), the inner deflection means (19) being configured integrally with the distributor plate (14).
- 10 14. The guide carriage as claimed in claim 10, in which the transfer hole (28) opens at the inner deflection means (19).
- 15 15. The guide carriage as claimed in claim 14, in which the inner deflection means (19) is provided with two adjacent ball grooves (20) in each case for one endless raceway, the transfer hole (28) opening into a separating web (29) which separates the two ball
- 20 grooves (20).